NAVAL ELITE UNITS Soldiers

fotofax

Michael G. Welham

AL ELITE UNITS

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ARMOUR PRESS





Front cover illustration:

US Marine Corps Reconnaissance Marines have to be able to infiltrate enemy coastlines by any means. Paddling an inflatable boat is hard work, but is required in shallow water and where silence is paramount.

Back cover illustrations:

Top:

US Navy SEALs equipped with M16 rifles and grenadelaunchers fitted underneath. A mixture of uniforms and equipment to meet individual preference is accepted.

Bottom:

Having been dropped from a small boat the SEALs wade carefully ashore, their weapons ready to fire. M16 with grenadelaunchers are the common weapon.



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INTRODUCTION

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2. The Swedish Ranger Combat Swimmer will be used not for attacking enemy targets but for gathering intelligence about enemy troops who have landed in his country. Sweden has numerous small islands off its coastline, and these would provide landing areas for enemy troops before pressing an attack against the mainland. The Rangers will be at the forefront of countering such action.

ommandos, born out of the Second World War, formed the basis for today's naval élite units. After the Italian Navy's Gamma Group frogmen attacked Allied ships in Gibraltar and the disastrous withdrawal of the British Expeditionary Force from France, Winston Churchill ordered the raising of special units, able to undertake raids from sea, to strike behind the enemy's lines.

The commando groups and other special operations units were composed of volunteers and were drawn from all services. They trained for covert and overt attacks against a wide range of targets using all manner of craft. Their operational requirements saw the development of fast raiding craft, underwater vehicles and midget submarines. These units used surface ships, submarines and parachute drops to effect insertion, and, while some raids failed, others were successful, often far in excess of the size of the force involved. Not all the raids were of an aggressive nature for the larger commando and marine landing formations found that small, well-trained units could be infiltrated ashore prior to a landing to gather vital intelligence about a beach, its approaches and defences.

During this period, Britain used troops drawn from the Royal Marines, Royal Navy and the army, while the US Marine Corps utilized the US Navy's Underwater Demolition Teams (UDT) and their own Recon Marines. Their work was a major factor in the successful outcome of amphibious landings, and probably contributed to the saving of untold lives during the hazardous phase of getting men ashore and establishing a beach-head.

With the end of the war the need for these special naval units declined and peacetime rationalization found them either dramatically reduced in size or even disbanded. It was not long, however, before the US Marine Corps again found itself undertaking full-scale landings from the sea, this time in Korea. Reconnaissance and raids behind the enemy's lines were required, and both the Navy's UDT and Marine Recon were drawn into action.

In Britain, the Royal Marines had taken over the commando role and developed the Special Boat Squadron as its reconnaissance and covert raiding force. France also had overseas interests and developed an amphibious force of marines and commandos. The Soviet Union, having virtually disbanded their Marines after the war, reassessed the value of amphibious-capable troops. The Soviet Naval Infantry was reestablished to support each of the Soviet navy's fleets. In addition the largest naval special forces formation in the world was formed. Spetsnaz units operate with the principal fleets as well as undertaking covert operations in support of Soviet blue water expansion.

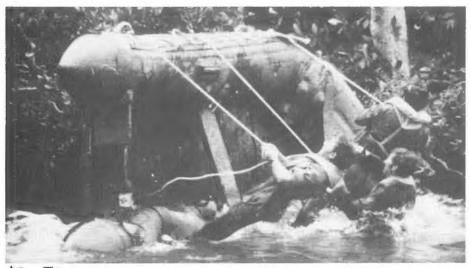
The value of naval special forces became apparent to the US Navy in Vietnam, when it was evident that a force capable of operating in the rivers and swamp areas was required. The SEALs, an acronym for the elements in which they operate, sea, air and land, were a total success, and have evolved to become one of the most versatile and formidable naval élite units in the world.

Apart from the major maritime nations, every country with a navy has developed some form of élite force, even if limited in size and capability. The units are trained in

the role of commandos with additional skills, such as parachuting and underwater swimming. Their role is that of intelligence-gathering in the eventuality of an amphibious landing or to create havoc behind enemy lines.

While military equipment has developed over the years, the commando or marine may well find himself aboard a Second World War vintage landing craft. They can move large numbers of men ashore from larger ships, but offer little or no protection for the troops. Hovercraft provide a new dimension to load carrying and speed, and the Soviets have developed them to create the world's largest fleet of such vehicles. Helicopters are essential for carrying men and equipment as well as providing fire support when fitted with weapons systems.

The requirement for naval élite units is still vital in the modern military context, as interventions in Lebanon, Grenada and the Falklands have shown. A further extension to their role has developed in combating maritime terrorism. This book deals with the large naval élite formations and provides some photographs of smaller and lesser known units. As a pictorial record it portrays the men, equipment and transportation that is common to all units.



3. Australia does not have a marine or naval élite force. The amphibious special forces role is undertaken by the Australian Special Air Service Regiment which has a Special Boat Group trained in all aspects of amphibious operations. These SAS are engaged in inflatable boat training in a river, but they operate at sea from surface craft as well as submarines. (Courtesy Kevin Skinner)



4. A Belgian para commando paddles a small inflatable boat during an infiltration exercise. He wears a green beret and belongs to Belgian's élite force, which has three regiments, two of which wear red berets, the third, green. They all undergo the same para-commando training course, with the greenberet regiment specializing in amphibious operations.



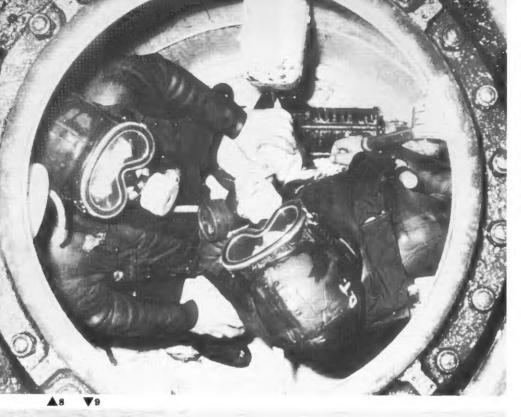


5. British Commandos of the Second World War paddle their rubber boat during a training exercise in a swimming-pool. They are wearing closed-circuit underwater breathing apparatus, and will practice placing charges on underwater obstructions intended to sink boats carrying troops ashore.

6. Lying off the coastline of Norway, a surfaced submarine prepares to launch Royal Marine SBS swimmer canoeists. The canoe is placed across the submarine's deck with the men aboard. The submarine could submerge slowly, allowing the canoe to float and the crew to paddle away to their target.

7. Naval élite unit operations can vary from large divisional landings to small covert raids. These two Royal Navy combat swimmers ride ashore on an early model of underwater swimmer delivery vehicle. They are dressed in dry suits and wear closed-circuit breathing apparatus. They are part of an operation to plant limpet mines on the underside on an enemy warship, and will submerge completely for the final phase of the attack.

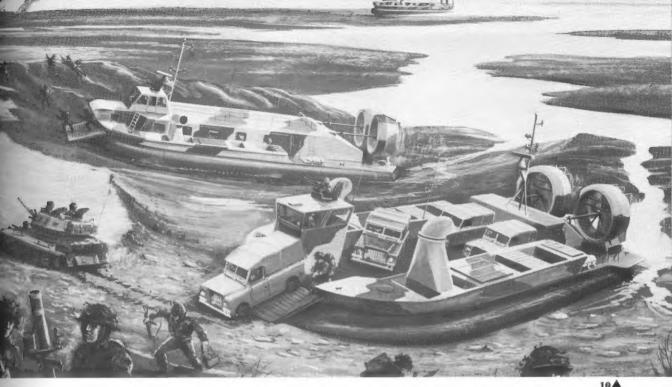




8. One of the most popular methods of carrying combat swimmers to the target area is by submarine. If the vessel is unable to surface the swimmers can lock out while it remains submerged. Here two members of the Royal Marines Special Boat Squadron wait in the boat's escape chamber, which is flooded to allow them access to the water outside. They also reenter the submarine by this method.



9. An inflatable boat with men of the British SBS prepares to be launched as the submarine slowly submerges. Once afloat the men can paddle the boat clear and start the outboard engine. The boat is stowed inside the submarine until required, then inflated on the upper deck. The main problem with this method of operation is that the submarine's fin makes a large blip on an enemy radar screen.



10. The United States Marine Corps and the Soviet Naval Infantry have hovercraft at their disposal. The Royal Navy had them on trial but has declined to bring them into service for use by 3 Commando Brigade. This artist's impression shows two different British designs. The first version provides flexibility from the full open

deck and can carry the equivalent of four Land-Rovers and a small number of troops. The enclosed version carries troops and supplies, affording the former some protection from enemy fire and the weather. Hovercraft can travel further and more quickly and carry more than their equivalent landing craft. They

can put the troops and vehicles ashore on solid ground and are not generally affected by mines or underwater defences.

11. The hovercraft makes a good support-weapons platform for British special forces operations. The drawing shows how it can be fitted with a variety of cannon and missiles,

and travel at high speed across water and up on to the beach. Rivers and marshy ground present no obstacle and this adds to attack flexibility. The Soviet Naval Infantry use their hovercraft to carry troops across ice-bound seas.



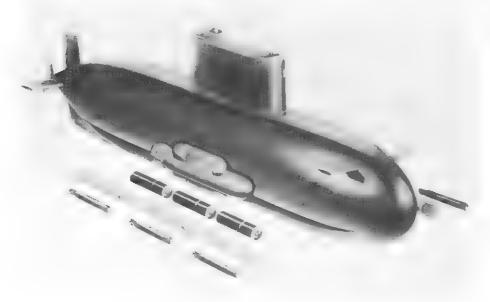


A12

12. Subskimmer, developed by Submarine Products of Great Britain, is a combined surface raiding craft and underwater swimmer delivery vehicle. The \$\blue{13}\$

craft is operated like a normal inflatable boat for the move to the operational area. When the air tubes have been drained of air and the outboard engine sealed from the water, the driver can use the module in the bow, fitted with two electrically powered motors with propeliers, to propel the craft when submerged. The crew wear underwater breathing equipment, and a cargo of mines and other equipment can be carried.

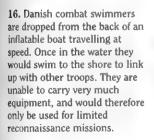
13. An artist's drawing showing the Vickers Piranha, a purposebuilt submarine for special forces operations. It is designed to the same specification as its larger sisters, but carries commandos who can be launched in rubber boats or locked out through the escape chamber while submerged. It carries two two-man mini-subs, one on each side of the hull, to permit submerged operations with a range of limpet mines. Apart from the mini-subs, antiship mines can be carried into shipping lanes, docks and harbours.



14. Combat swimmers can create havoc among enemy shipping by covert underwater attack. This British diver has compressed air breathing tanks which could give off a trail of bubbles when used, but with a closed-circuit set no bubbles will be given off, and he will remain unseen and unheard.



15. Denmark's Sovaernets Fromandskorps provides a small commando force for covert operations within the NATO framework and is rumoured to be among Europe's best. A fourman patrol is seen dragging its inflatable boat ashore having paddled in from a larger vessel. For this last part of the infiltration they have put on their equipment and carry weapons on slings, so that if they are spotted by the enemy they can leave the boat and engage him.









▲17
17. An Egyptian Marine prepares his RPG7 anti-tank rocket-launcher, having made an amphibious landing. The stark contrast between the man's dark skin and uniform and the almost white sand, is very evident. They Egyptian Marines have seen action in recent years in the wars against Israel. Today they train with the US Marine Corps in joint

amphibious landing operations.

18. An East German soldier undertakes commando training. As part of the Warsaw Pact amphibious forces, the East German 29th Ernst Moritz Arndt Regiment provides troops who are not a dedicated marine force, but are skilled in undertaking landings from the sea, and have vessels dedicated to the task.



▲ 18
19. Armed with Heckler & Koch weapons and equipment in sealed rubber bags, West German naval combat swimmers come ashore on a small raiding operation. The West Germans do not have a marine force, and so this élite unit would be tasked with intelligence-gathering and amphibious raiding missions within the context of NATO. The

swimmers are wearing wet suits and fins can be seen, but the absence of underwater breathing apparatus means that they have only undertaken a surface swim.



W19



20. Naval élite units are tasked with the seeking and removing of mines. In modern naval warfare, mines play a key and damaging role. This diver from the West German Navy has located a mine, which he examines. He may attempt to

dismantle the detonators under water, or he can attach an explosive charge to detonate it from ashore.

21. The canoe found fame in special operations during the Second World War and is still

widely used by special forces today. The picture depicts Dutch commandos on exercise in the canals where such craft could be used to carry men and equipment on operations. These swimmers are dressed in dry diving suits and could take to the water to complete a mission using underwater breathing apparatus. The canoe can be dismantled and packed in bags for carrying or dropping by parachute.





A 22

22. Dutch Marines form part of Britain's Royal Marine 3
Commando Brigade. The picture shows Dutch Marines in sticks ready to board Royal Navy Sea King commando helicopters, aboard a Royal Navy aircraft carrier. The Marines are lightly equipped for the initial assault where the aim is to get many men ashore as quickly as possible. The heavier equipment and vehicles will be air lifted once all the troops have been landed.

23. Moving large numbers of men and equipment is no easy task and for those involved it means enduring cramped conditions often in unusual places. Here we see Dutch Marines in a hangar aboard HMS *Hlustrious* during the transportation phase. Note that equipment is kept ready to go when the order is given.

24. Part of amphibious special forces training includes parachuting into water. Modern

methods allow men and equipment to be dropped close to an operational area, from a wide variety of aircraft. The canopies used by these Dutch Marine SBS swimmers are round and steerable, designed to afford some flexibility, especially in getting close to stores packages dropped with them. The inflatable boat is used for safety, but they can be dropped with swimmers, already inflated, and ready to go, or in packages, to be assembled in the water or on land.

25. Maritime anti-terrorism is part of naval élite forces' operations, This Dutch Marine has infiltrated a vessel having crawled up the mooring rope. Dressed in a dry diving suit, he is armed with a UZI submachine-gun. Note the compact radio which is a key component to maintain contact with other members of the team and with the controller. The flare, taped to his knife, is an emergency marker, should he fall or jump back into the sea. During training, safety is paramount.





26. Dutch Special Boat Section swimmers wearing dry suits and the Drager LAV closed-circuit breathing apparatus prepare for a covert underwater swim. They are lining-up the swim board with the target, which contains the navigation equipment, including compass and depth gauge. The swimmers need a lot of practical training to become skilled in this type of underwater work.

27. Dutch Marines come ashore from landing craft in Norway. As part of NATO's 3 Commando Brigade they train for arctic warfare with Britain's Royal Marine Commandos. Each man carries snow shoes, but only wears the white over-trousers during this operation. Note the heavy weapons on the landing craft which would be used to provide supporting fire.



28. RAF Puma helicopters deploy Dutch Marines as part of the NATO combined forces commitment. The Puma is a medium-lift helicopter, able to carry a section of troops or an underslung load. Normally the Marines would be lifted ashore by Royal Navy helicopters, but once the beach-head is secure RAF support aircraft would be available.

29. Dutch Marines on a ski patrol in the mountains of northern Norway. Arctic warfare is part of the amphibious group's wartime commitment and the rugged terrain is far removed from the flat landscape of Holland. Each man carries a large bergan, and two of the patrol are towing a sledge with heavier equipment aboard.







would be delivered into battle having got wet and sandy, neither of which would help men, weapons or equipment.

32. Vehicles play an increasing role in modern amphibious warfare to facilitate mobility, speed, load-carrying capability and weapon support. This vehicle of the San Marco wades ashore laden with equipment and ammunition. The main disadvantage in landing vehicles

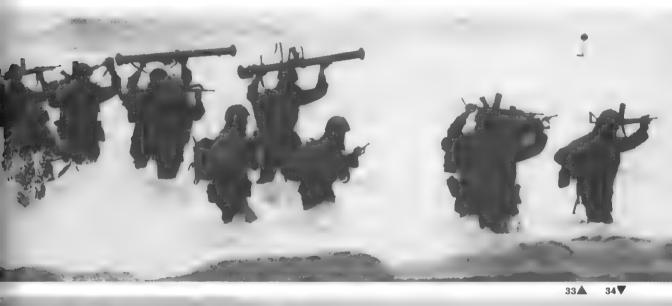
from the sea is the condition of the beach; soft sand, marshy ground or rocks can restrict access.

33. San Marco troops wade ashore through the surf having been deposited by a landing craft. Weapons are held high, clear of the water, which in the surf area contains particles of sand and could affect the working of weapons. Note the large and outdated anti-tank

rocket-launcher, now being replaced by lighter and more compact systems. The Italian Navy recruits its Frogmen and Raiders Group, Commando Raggrupamento Subacqui ed Incursori or COMSUBIN, from the ranks of the San Marco battalion. This 200-strong naval élite is based at La Spezia; it divides into the Raiders Operations Group which conducts offensive operations, and the Frogmen Group which

provides coastal support.

34. Sand is an enemy to weapons for it can jam the working parts and cause stoppages. These San Marco troops are lightly laden to allow rapid deployment once ashore. The remainder of their equipment will come ashore once the beach is secure, but in the meantime smoke is used to provide an artificial shield to an otherwise exposed sandy beach.







35. Although Luxembourg has no navy or dedicated amphibious force, selected troops do work with NATO forces in seaborne landing operations. These Luxembourg soldiers go ashore in Norway, equipped with winter warfare clothing and skis.

36. High-speed rubber inflatable boats power ashore to land the Portuguese marines. The photograph clearly shows how the boats can gain access to the beach to allow the troops to get ashore quickly. One failing of these boats is that they are susceptible to gunfire, and afford no protection to the troops.



37. All naval élite units have an affinity with mud and instructors go to all lengths to find it. It does build stamina, and creates a team spirit. One Portuguese marine gives a helping hand to a colleague as he fights against the suction of the mud below the water.

38. The lightly laden
Portuguese marines have got
ashore and gone to ground in
the limited cover and can bring
their weapons into play before
beginning the move inland. The
inflatable boats have been
beached and turned around and,
with their drivers, are ready to
be relaunched and carry the
troops back out to sea.





All countries with a navy have some form of marine or naval élite unit with duties as varied as guarding naval bases or providing amphibious landing troops. The size of the units varies greatly, with some based upon regimental formations and others at brigade strength and even larger. It is also relevant that while some of the troops are commando trained and use army ranks, others have only infantry training and use naval ranks. The French amphibious capability is perhaps a classic example of many countries' organizations, in that the bulk of marine-orientated troops are established upon infantry lines with a specialist capability of undertaking amphibious operations. These formations have separate commando-trained units for specialist raiding and reconnaissance operations. Within the commandos are the combat swimmer groups who undertake beach reconnaissance prior to an amphibious landing, or attack enemy shipping.

The equipment used by the formations of different countries is basically the same. Landing craft, of Second World War design, get the men from the landing ships to the beach and the principal transporters can be dedicated amphibious ships or requisitioned merchant vessels. Helicopters play an increasingly greater role in modern operations, as they can deposit men and equipment behind the coastal defences. They also ensure that supplies are moved faster and closer to the action and casualties can be evacuated to the vessels lying offshore. The Soviet and US Navies have hovercraft (air-cushioned vehicles) added to the list of amphibious assault craft. These make the task of landing more flexible, for they can operate over marshy ground or ice-covered sea, and are not affected by mines or underwater anti-landing craft obstructions. They are also able to deliver the troops on to dry ground and close to cover while providing fire support from their onboard weapons systems. For all countries tactics for amphibious operations follow the same basic guidelines, whether a major marine landing force or a small-scale commando raid

More sophisticated and specialized equipment is increasingly coming into service; examples of this would be ultra-fast catamaran assault craft, very quiet outboard motors, covert operations craft with underwater propulsion systems, and Heckler & Koch P11 underwater pistols. Advances are constantly being made in this area and many units are frequently receiving new and better inventories.

USA

The US Navy SEALs (Sea-Air-Land) provide the amphibious special forces. Organized into two elements, Naval Special Warfare Group 1 is based at Corondo, Ca and Naval Special Warfare Group 2 at Little Creek, Va.

Both groups have a number of SEAL teams each of which comprise 27 officers and 156 men, and a swimmer delivery vehicle team which uses the underwater vehicles to mount covert attacks against enemy ships and installations. The special boat units are equipped with a wide range of surface craft with which they insert and extract operational SEAL teams and provide fire support when required. SEAL teams with supporting elements are deployed with each fleet and at a number of bases around the world.

The US Marine Corps is the largest amphibious force in the world, and apart from being carried aboard US Navy-manned

Note: NSW unit 3 will form part of Naval Special Warfare Group 1 when the SEAL forces are expanded as planned.

ships, the Corps is self-sufficient. It has its own air arm with jet and propeller fixed wing aircraft and all variants of helicopter. As part of the Marine Unit composition, each has its own artillery, armour and full support services.

The Marine Amphibious Unit (MAU) has a strength of between 1,800 and 4,000 men and is the smallest task force deployed by the Marines with a limited combat capability. These units are on regular deployment around the world and would provide the lead element of a larger force.

The Marine Amphibious Brigade has between 8,000 and 18,000 men. It is a large force with its own air and naval support element and can remain effetive in the field for about 30 days.

The Marine Amphibious Force is the largest of the Marine Corps elements with more than 50,000 men, and can remain in full combat operation with air and naval support for 60 days.

Force Reconnaissance Company are the eyes and ears of the larger elements and are a special force within the Marine Corps. Prior to an amphibious landing the Recon troops will infultrate ashore to gather intelligence, establish helicopter landing areas and direct air and naval strikes against defences. Once the Marines are established ashore, Recon will move ahead of the main force to gather and provide intelligence of enemy concentrations and defences.

GREAT BRITAIN

Royal Marine Commandos form the basis of 3 Commando Brigade, through 40, 42 and 45 Commandos, each with a strength of some 650 men. The Brigade is supported by 29 Commando Regiment Royal Artillery, 59 Commando Royal Engineers, the Commando Logistic Regiment and the Commando Air Squadron which provides helicopters in addition to those of the Royal Navy. For the NATO role, the Royal Netherlands Marine Corps provide a company as an integrated element of the Brigade. All men are commando-trained, wearing the green beret, and 45 Commando are the dedicated arctic warfare specialists for operations on the northern flank. The Brigade has additional specialized support from the Special Boat Squadron, the Arctic and Mountain Warfare Cadre and the Raiding Squadron.

FRANCE

The French Marine Commandos are marines in the true sense, and wear the green beret, signifying that they are commando-trained. The unit comprises 37 officers, 154 senior NCOs and 391 marines. Each commando assault group has 84 men and the combat swimmer groups, 48 men. The HQ and base group numbers 79, plus a specialist group of 24 commandos and 15 combat swimmers. The commando support group has 70 men with various specialist skills.

The 9th Marine Infantry Division is part of the French Army and as such wears its uniforms and insignia. Its personnel are not marines in the accepted manner of the Royal Marines and US Marines Corps, but form an operational division which specializes in amphibious operations. The division has a strength of some 8,000 men of which some 60 per cent are professional soldiers, the remainder being conscripts.

The formation is motorized with more than 2,000 vehicles of various types at its disposal. The Amoured Regiment is equipped

with the ECR 90 (Engin-de-Reconaissance Canon) Sagais. The Artillery Regiment has 105mm LG1 Howitzers and 30mm and 40mm automatic cannon for air defence. The latest anti-tank and anti-aircraft missiles are carried at all levels

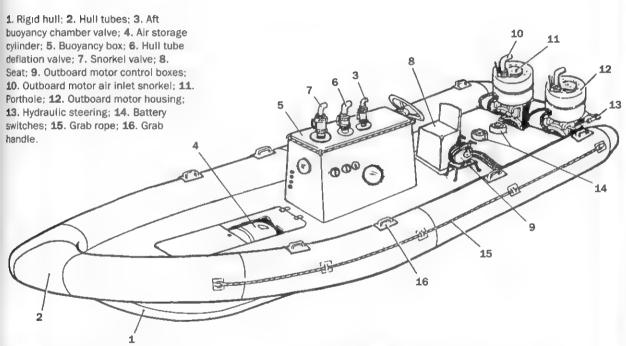
USSR/WARSAW PACT

Naval Spetsnaz provide a 1,300-strong Brigade for each fleet which operates independently of the SNI. Commanded by their own HQ companies, the principal elements of combat swimmer groups are supported by midget submarines and a number of specialist sections. All naval Spetsnaz are skilled in underwater swimming, parachuting and special forces operational techniques, spetsnaz wear the same uniform as the SNI, but can be identified by the fact that SNI wear a 'Guards' badge; Spetsnaz do not.

The East German 29th Ernst Moritz Arnd Regiment and the Polish 7th Luzycka, a naval assault division, are part of each country's army, trained in amphibious asault techniques. The Bulgarian and Romanian naval infantry are organized on similar lines to those of the Soviet Naval Infantry. They are small formations which would operate with other Warsaw Pact units for amphibious landing operations.

The Soviet Naval Infantry has a strength in excess of 16,000 men. The regiments serving with the Northern, Baltic and Black Sea Fleets each have more than 3,000 men, while the two Pacific Regiments have more than 7,000 men. Each regiment has three rifle battalions, a tank battalion with PT-76 light tanks and T62 main battle tanks plus the full supporting elements to make the regiment self-sufficient. The SNI are an élite marine force and wear a distinctive uniform of black beret and a black combat suit worn over a blue-and-white striped t-shirt.

EXCALIBUR 180



Dimensions

Length: 7.0 metres

Beam (side tubes deflated): 2.3 metres

Height: 1.5 metres Weight: 1,300kg

Engines

Number: 2

Type: 2-stroke outboard Number of cylinders (each): 3 Cubic capacity (each): 1,140cc Compression ratio: 5.1 to 1 Horsepower: 90 at 5500rpm

Ignition system: C.D.I. Fuel tanks (each): 70 litres, flexible

Onboard Systems

Batteries: 4 × 1.25kWh 12 volt lead/acid accumulators

Compass: True reading fluxgate

Echo-sounder: Digital, depth to bottom in metres below

transducer

Depth gauge: Analogue, depth below surface, in metres

Volt meter: 18V to 32V Ammeter: 0 to 300 amps

Compressed air: 100 litre × 200 bar cylinder, capacity 20

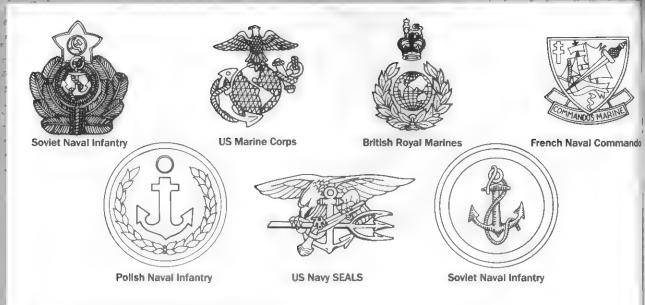
cubic metres

Capabilities

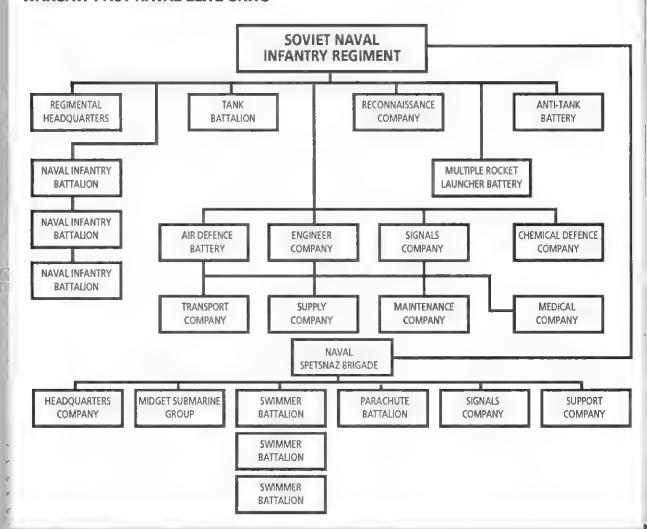
Speeds: Maximum over 30 knots; cruising 20 to 25 knots

Payload: 1,200kg

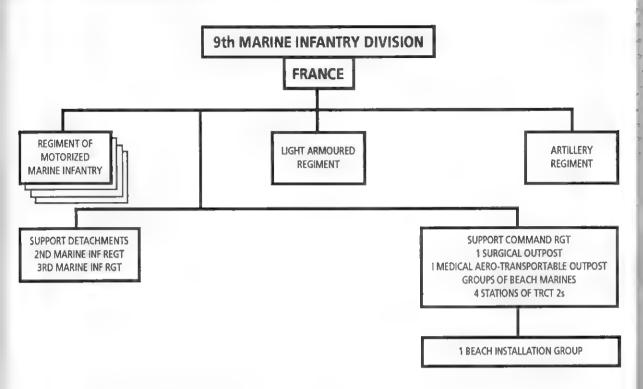
Maximum operating depth: 60 metres



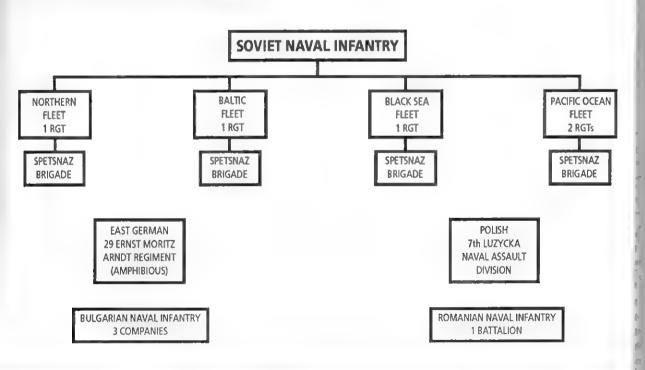
WARSAW PACT NAVAL ELITE UNITS



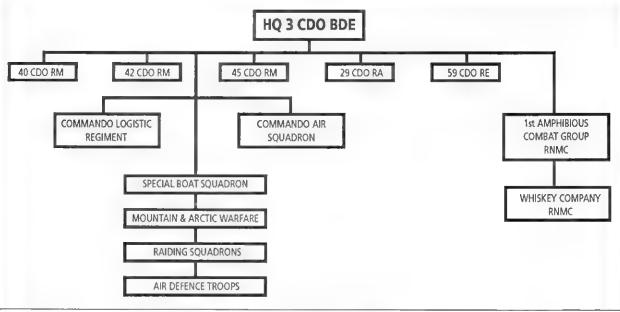
FRENCH 9 MARINE INFANTRY DIVISION

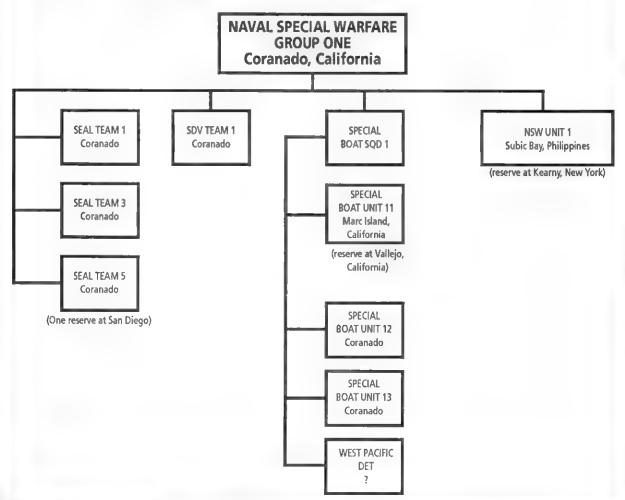


SOVIET NAVAL INFANTRY REGIMENT

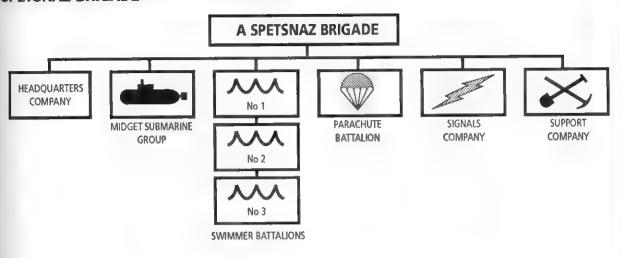


BRITISH 3 COMMANDO BRIGADE, ROYAL MARINES

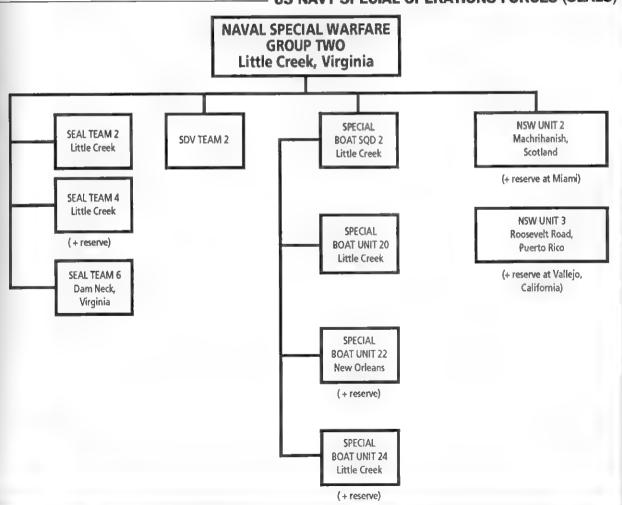




SPETSNAZ BRIGADE



US NAVY SPECIAL OPERATIONS FORCES (SEALS)





39. Water and a muddy or sandy bottom hinder the assault troops during the most vulnerable part of their operations. With this in mind much of marines' training involves moving through water where weapons must be kept clean and dry for it is usual for troops to negotiate wet muddy conditions before firing weapons.

40. A Portuguese marine plays Tarzan on the assault course, where troops build stamina and endurance, and develop self-confidence. Once ashore they take the role of élite fighting troops involved in commando-type operations. This marine is using a rope to swing across a gap, and has the advantage of not carrying a weapon or equipment. As training develops they will be carried at all times.



41. Once ashore the marines must be able to fight an enemy with heavier weapons and possibly in defensive positions. Lightweight, short-range mortars are invaluable in providing support fire power. Two Portuguese mortar teams are taught how to use the weapon to the best effect to deliver smoke or high-explosive bombs.

42. The Spanish marines deploy the US-developed Amtrac to carry troops and equipment ashore. The commander can direct the vehicle to a suitable drop-off point and provide covering fire from the vehicle's main armament. Spain has other units with naval capabilities, notably its Foreign Legion's élite Special Operations Unit which is trained in scuba.



43. Dawn is the favourable time for amphibious landing, as it allows the transport vessels to move in under cover of darkness, and the final stages of beach clearance to be completed before the first landing craft hit the beach. South Korean marines are silhouetted against the rising sun with the transport ship well out to sea. The marines are laden with equipment and not part of the initial landing force which would have weapons ready to use, and be lightly equipped.







44. Soviet Naval Infantry land in force from *Polnocny*-class Assault Landing Ships. T-55 main battle tanks provide the heavy fire power as armour and troops move inland to secure the beach-head. The Soviet Union has continued to develop the SNI's capacity to land troops from the sea and all aspects are undergoing an update, particularly in armoured

vehicles and tanks. To complement the amphibious landing ships and other support vessels, the Soviets have the largest fleet of hovercraft in the world, developed to undertake amphibious military operations.

45. PT-76 Light Amphibious Tanks of the Soviet Naval Infantry (Morskaya Pekhota) depart through the bow doors of the Polnocny-class Assault Landing Ship. The PT-76 can be landed on a beach or launched at sea, to swim ashore. During either option the tank can fire its 76mm main gun and 7.62mm machine-gun. Polnocny-class vessels carry a mix of troops and vehicles, and on the main deck can be seen the two 18-tubed 140mm shore bombardment rocket-launchers.

46. The BTR-60 PB Amphibious Armoured Personnel Carrier provides the Soviet Naval Infantry with an amphibious mobile vehicle, carrying a squad of troops. Fire support is provided by the main armament of a 14.5mm gun and 7.62mm machine-gun. These vehicles can be landed on a beach or launched at sea to swim ashore.



47. Soviet PT-76 Amphibious Light Tanks of the Soviet Naval Infantry spearhead a sea landing. Armed with a 76mm main gun and 7.62mm machine-gun, the PT-76 provides effective and flexible fire support to the landing operation. It cannot defeat a main battle tank, but at close

range can destroy most other armoured vehicles, and is effective against bunkers and other defences.

48. Soviet Naval Infantry practise close-quarter combat using AK rifles with bayonets fixed. Their training is hard by Marine standards and exercises are as realistic as possible.



Injury and even death are not uncommon and are considered acceptable to Soviet authorities. Note the short black jackets and striped T-shirt worn underneath; predominantly black attire has led to their nickname, 'The Black Berets'.

49. The Soviet Naval Infantry and Naval Spetsnaz are deployed ashore by Mi-8 helicopters. The latter are of medium lift capability, deploying a section of men with equipment. Above the open door, a winch can be seen indicating that the aircraft is capable of rescue operations.





50. The Soviet Navy has the largest fleet of hovercraft in the world. This Aist-class vessel can carry a mixture of tanks, armoured vehicles and troops up to 70 tons in weight. It has a maximum speed of 70 knots and has two twin 30mm anti-aircraft guns which can be seen on each side of the cockpit. These vehicles have been used to undertake landings over the icebound Baltic, making them a formidable delivery system in extreme conditions.

51. Soviet Naval Infantry train for war in all climatic conditions. They are well suited to winter warfare, and this picture shows them in all-over white camouflage suits, with only boots, belt and weapon providing a stark distraction. During operations these would be adapted to blend in with surrounding conditions. The naval infantry have élite Guards status and their battle cry is 'Polundra', which roughly translates as 'watch out!'







52. While Sweden is a neutral country it maintains a careful watch on its powerful neighbours in the Soviet Union and Eastern Bloc. They are fully aware of the Bloc's amphibious capability and have established an élite commando force of 'Rangers' to counter the infiltration of enemy naval units and special forces. They make good use of helicopters to deploy rapidly to an area of attack.

53. Swedish Rangers are mobile and well equipped. This team is equipped with a Carl Gustav 85mm anti-tank weapon, suitable for use against armour, bunkers or landing craft. This picture shows how much more compact the weapon is compared to the weapon carried by the Italian San Marco troops. The role of the Rangers is to strike at enemy amphibious troops who have landed on Swedish soil.

54. Striking back at enemy forces requires fire power and the 7.62 machine-gun used by the Swedish Rangers has this. It is the largest gun carried by the unit whose teams operate from a variety of naval craft and aircraft and mobility is a key factor in their operations.



55. Swedish Rangers storm from the back door of a naval helicopter during an exercise to strike at enemy troops who have landed in Sweden, In accordance with Sweden's neutral policy they are trained for defence purposes only, although they are commandos with skills in parachuting, small boat operations and underwater swimming. A major part of their training requires them to operate in arctic conditions, which engulf the northern part of their country every winter.



56. A Swedish Ranger patrol, armed with Swedishmanufactured AK4 rifles. The men are lightly equipped and carry their radios and ammunition in bags or pouches, while other items are carried in large pockets in their combat uniforms. Trained to operate from small boats, helicopters or parachute drops, they are at home on the small islands along Sweden's coast or in the arctic north.





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57. The face of southern Africa is portrayed in that of a Transkei Seaborne Unit diver. Trained by the South African Defence Forces, these men are tasked with countering terrorist infiltration into the rivers and coastal waters of the Transkei.

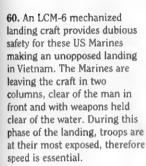
Getting into action can be by inflatable rubber boat, helicopter or, less dramatically, from a beach or river bank. The swimmers use a mixture of dry and wet suits, and primarily use compressed air diving equipment.

58. South Africa's war against terrorism requires unusual methods of operation.
Instructors from the South African Defence Forces have aided the creation of the Transkei Seaborne Unit. It is said to be one of the best

underwater operations units in southern Africa and is tasked with guarding the Transkei's rivers and seaboard from infiltration and attack.



59. US Marines of the 9th Marine Expeditionary Brigade make an unopposed landing at Da Nang, Vietnam. An amphibious landing enabled a large number of men and their equipment to be shipped to the country and put ashore. The methods and vessels used had served the Marine Corps during the Second World War and in Korea.



61. Assault troops go ashore in Vietnam carrying heavy loads of equipment and ammunition. Apart from possible enemy gunfire they have to cope with a surging sea and soft moving sand underfoot. Men have been known to step off the ramp into deep water, sink under the sheer weight of equipment, and be drowned.







62. US Marines come ashore from a utility landing craft during amphibious landing operations in Lebanon, where the Marine Corps provided a peacekeeping force. The men are lightly equipped for the wade ashore, their heavier equipment to be off-loaded with the vehicles. The process and the craft appear little changed after nearly two decades.

63. A US Marine holds his

weapon well clear of the water as he wades ashore at Beirut. After the last man has left the landing craft, the crew will raise the bow door and the craft will move out to a landing ship to collect more men or equipment. Once ashore the Marines need to be resupplied and that is a continuous operation. Landing craft are not equipped with heavy machine-guns for supporting fire during opposed landings.

64. Protection is afforded by the Landing Vehicle Tracked (LVT) which is an amphibious armoured personnel carrier, able to swim to the beach and deliver the troops on dry land, and close to cover. The LVT has a turreted machine-gun to provide supporting fire against enemy defences. These vehicles can carry the troops inland and serve as APCs to work with tanks and other armour.

65. The LVT has a low profile, but is of a width to allow the troops to sit in rows, although with a complement of fully equipped marines space will be very confined. This vehicle is the forerunner of the LVTP–7 series which is now in service and replacing the older vehicles. Note the marine with the antitank rocket-launcher, now replaced by smaller and more effective weapons.









69. Helicopters play an important role in naval special forces operations. A US Navy SEAL from an underwater demolition team (UDT) drops from the central hole of an H-46 Sea Knight helicopter while it travels low over the water. The swimmer is wearing a wet suit

and has his mask and fins tucked in his equipment ready to be fitted once he is in the water.

70. To recover SEALs from the water by helicopter requires a ladder to be lowered with the end trailing in the sea. The

swimmers remove their fins and masks before starting the climb up into the aircraft. If the pick-up operation comes under enemy fire, the helicopter can move to a safe location with the men clinging to the ladder.

66. Once marines have landed, they will need to consolidate the beach-head and that will require heavier fire power. During the early stages of the Vietnam War the M-50 Ontos 106mm self-propelled recoilless rifle provided a flexible weapon system. A member of the Beach Landing Party directs the vehicles once they are ashore, while offshore more landing craft wait to be loaded with men and equipment for transportation to the beach.

67. Amphibious troops require amphibious vehicles and the Ontos proved its ability during landing operations. Being small in size, it was easily transported and could be landed on a variety of beaches.

68. A M-151 Jeep equipped with a fording kit is driven into the sea to be loaded on to a waiting craft. This vehicle is one of many used during US marine withdrawal operations in Lebanon. In modern warfare the landing craft still plays a vital role, but has a serious challenger in the form of hovercraft, which are less susceptible to damage from submerged obstructions and mines.









71. Fire power is provided in support of marine operations by armed helicopters. A gunner mans his .50-calibre machinegun aboard a US Marine CH-46E Sea Knight helicopter during operations in the Persian Culf. These helicopters provided fire support to marines and SEALs during action against the

Iranian Revolutionary Guards

72. The helicopter has added a further dimension to amphibious operations by being able to deposit troops inland. The airmobile troops are able to secure a beach-head more rapidly. This picture shows a CH-46A Sea Knight helicopter landing Vietnamese marines into a Viet Cong infested area some fifteen miles from Phu Bai in South Vietnam.

73. Resupply can be accomplished in otherwise inaccessible areas using helicopters. Stores and weapons can be underslung to be dropped on pre-determined locations, and men can be roped down or winched up. The aircraft can also provide heavy suppressive fire on to enemy targets.

74. A US Marine Corps UH-34D helicopter of the late 1960s, deposits marines ashore, well behind the beach-head. The load capacity of these helicopters was limited, but made marine operations more flexible for rapid deployment. The marines are equipped with M14 rifles, later to be replaced by M16s.





75. Operation 'Urgent Fury' required the US marines to undertake a combined seaborne landing and helicopter assault on to the island of Grenada. The helicopters flew men and equipment to the island and ferried civilians out to the warships lying offshore.

76. US Navy UDT swimmers prepare to make a drop off from a high-speed craft. Wearing wet suits, fins and face masks, the men roll from a rubber inflatable boat towed alongside a larger craft, swim ashore to undertake a beach survey and reconnaissance, and are recovered by swimming out to sea and waiting in line. The boat then speeds down the line of men, who have an armed raised, which is caught by a loop in the bow of the rubber boat. The speed of the boat draws the snared man up out of the water and into the boat.





77. Naval élite troops are not always in the thick of battle or undertaking covert operations. These men of the US Navy's UDT are taking part in a debris removal operation on a bridge in Vietnam in order to deny the Viet Cong use of the debris collected around the bridge support to hide bombs and destroy the bridge. The men of the UDT were trained to render bombs safe.

78. A good photograph of a US Marine Corps M60 tank departing its landing craft to wade ashore in Vietnam. Note the extended exhaust pipe which allows it to drive through the water. During the war tanks were landed for amphibious operations, but were restricted in their inland movements because of paddy fields and the jungle. They provided mobile gunfire support and base camp defences.









79. Nuclear-powered submarines carry commandos and their equipment further and more quickly than their successors of the Second World War. Submerging at the home port, the vessels can transit to the drop-off point without surfacing. No location is closed to them, and they will almost certainly remain undetected. The raiders can be deposited using inflatable boats, canoes or, with the modified submarines, swimmer delivery vehicles, which are housed in special garages attached to the upper deck. The vessel shown is the USS Von Steuben (SSBN 632).

80. US Navy SEALs used Vietnam's extensive waterways to strike at Viet Cong fortifications. This three-man unit has been delivered by armoured landing craft to Vinh Binh where it provides a defensive guard and support strike force for the main attack. The men wear ad hoc items of uniform and equipment and carry a wide variety of weapons. These SEALs have M16 rifles, the standard issue rifle during the latter phase of the Vietnam war.

81. Special units are developed for a special style of warfare. This in turn requires a special type of person. This SEAL looks unconventional, but his unkempt appearance is the result of weeks spent behind enemy lines, observing movements of Viet Cong guerrillas and North Vietnamese regular troops. The sweat-band was to become a symbol for future conflicts, but was practical in the jungles and river areas of Vietnam.

82. US Navy SEAL trainees, heads shorn, perform press-ups in the surf as part of their gruelling fitness programme. Moving over sandy ground in shallow surf will become part of their operational requirements and so a lot of time is spent in these conditions.

83. The rapid deploying of special forces troops requires mastery of the technique of rapelling from helicopters. These SEALs have deployed the ropes, and with weapons slung will descend rapidly to the ground or vessel. Note their small, compact helmets. These forces have most recently been used to great effect in clashes with Iranian naval units in the Arabian Gulf and the Straits of Hormuz.



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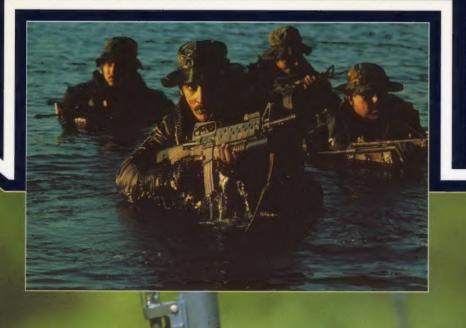
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